

CLAIMS

1. A resistance exercising device, typically a resistance bench, for body fitness and weight training exercises including a housing, at least one biasing means, at least one internal cable, at least one hub-pulley or pulley, at least one external cable, at least one gripping means, at least two moveable chains, at least four sprockets, at least one metal rod and at least one axle, wherein
- 5 i. said biasing means is adapted to be connected to an internal side wall of the housing,
- 10 ii. said pulley is adapted to be rotatably fixed to a side wall of the housing opposite to the internal side wall the biasing means is connected,
- iii. said biasing means and said pulley are adapted to be connected to one another by said internal cable that is adapted to be wound onto and unwound from said pulley,
- 15 iv. said pulley is adapted to be connected to one end of said external cable that is adapted to be wound onto and unwound from said pulley,
- v. said gripping means are adapted to be connected to the other end of said external cable,
- vi. said metal rod is adapted to be attached to at least two of the said moveable chains which are adapted to be wound around said sprockets, and
- 20 vii. said axle is adapted to be attached to at least two of the said sprockets, wherein in use as a user extends said gripping means away from the resistance exercising device said external cable is unwound from said pulley causing said internal cable to wind onto said pulley and to cause biasing means to extend against the bias of the biasing means such that the greater the distance the biasing means extends the
- 25 greater the resistance applied to the user and such that as user releases force on said gripping means said external cable is wound onto said pulley and said internal cable is unwound from said pulley under the action from the biasing means and during this process the said metal rod is forced to remain perpendicular to the side wall of the housing by its attachment to said moveable chains.

2. The resistance exercising device as claimed in Claim 1 wherein the biasing means is a spring mechanism, preferably a closed spring mechanism.
3. The resistance exercising device as claimed in any one of the preceding claims wherein
5 within the housing there are multiple biasing means connected to the internal side wall and connected to the internal cable.
4. The resistance exercising device as claimed in any one of the preceding claims wherein
10 a further pulley is rotatably fixed to the opposite wall that the other pulley is rotatably fixed, wherein the further pulley is connected to another biasing means connected to an internal end wall of the housing by a further internal cable and the further pulley is connected to a further external cable having hand/leg handles or gripping means.
5. The resistance exercising device as claimed in any one of the preceding claims wherein
15 an outer surface of the housing is upholstered or covered typically with a padded vinyl material or with a suitable similar material.
6. The resistance exercising device as claimed in any one of the preceding claims wherein
20 the housing has a seat portion, and adjustable retractable legs to allow the resistance exercising device to be positioned on the floor.
7. The resistance exercising device as claimed in Claim 6 wherein the legs can be
25 extended from a position flush with the side walls of the housing to a fully extended position, and may have additional support levers extending to add support when in use or in use as a seat.
8. The resistance exercising device as claimed in Claim 6 wherein an outer surface of the seat portion is upholstered.

9. The resistance exercising device as claimed in any one of the preceding claims wherein the resistance exercising device is portable.
10. The resistance exercising device as claimed in any one of the preceding claims
5 wherein the resistance exercising device is made from lightweight durable materials, typically lightweight metals and/or plastics such that the resistance exercising device can be easily lifted and used in any exercising position.
11. The resistance exercising device as claimed in any one of the preceding claims
10 wherein the pulley has a first hub to which the internal cable is connected and a second hub to which the external cable is connected.
12. The resistance exercising device as claimed in Claim 11 wherein the second hub has a greater diameter than the first hub.
- 15 13. The resistance exercising device as claimed in Claims 11 or 12 wherein the pulley has a first to second hub ratio of 3:1 (or similar).
14. The resistance exercising device as claimed in any one of the preceding claims
20 wherein the biasing means is connected to the internal side wall and to the internal cable by releasable fasteners.
15. The resistance exercising device as claimed in any one of the preceding claims
25 wherein the gripping means are connected to the external cable by releasable fasteners.
16. The resistance exercising device as claimed in any one of the preceding claims wherein the gripping means has moulded hand/leg grips.

17. The resistance exercising device as claimed in any one of the preceding claims wherein the housing has a door which allows access to the interior of the housing.

5 18. The resistance exercising device as claimed in any one of the preceding claims wherein the housing has handles attached thereto to allow for easy transportation thereof.

19. The resistance exercising device as claimed in any one of the preceding claims wherein external cable/s can be attached to said external cable to lengthen it.

10 20. The resistance exercising device as claimed in any one of the preceding claims wherein the housing has a back-support wherein the back-support can be adjusted to a plurality of positions.

15 21. The resistance exercising device as claimed in Claim 20 wherein an outer surface of the back support is upholstered.

20 22. The resistance exercising device as claimed in Claim 1 wherein the biasing means is an elastically stretchable material or any other suitable resistance element adapted to apply a resistive force when stretched.

23. The resistance exercising device as claimed in Claim 15 wherein the gripping means are ankle straps adapted to allow the external cable to be pulled by the ankle of a user.

25 24. The resistance exercising device as claimed in any one of the preceding claims wherein the housing is fitted with wheels adapted to allow the housing to move so that additional exercises can be performed as the housing moves relative to the surface is situated.

25. The resistance exercising device as claimed in any one of the preceding claims wherein the said metal rod/s is/are attached to said moveable chains sitting upon sprockets attached to adjacent sprockets via an axle or axles.

5 26. A resistance exercising device substantially as herein described with reference to the accompanying drawings.

10

15

20

25